

The Morning Email: TERM TEDS & Dirty TEDS

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Want something added? Let me know: jgoulding@ghco.com

Disclaimer: All information within this newsletter is meant for internal use at GH Trader's LLC, only. All information has been recorded to the best of my ability. This material is based upon information that I consider reliable, but I do not represent that it is accurate or complete.

Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	108.4281	108.137	0.688	1.93
ZF	117.2094	117.067	1.539	1.54
ZN	124.1094	124.035	2.559	6.45
2y	100.609	100.1950	0.938	1.97
5y	100.850	100.2720	1.818	4.74
10y	107.953	107.3050	2.826	8.34

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.878	2.123	14	0.037	DEC	
EDAH09	98.095	1.905	105	0.287	MAR	White Pack
EDAM09	98.100	1.900	196	0.536	JUN	
EDAU09	98.075	1.925	287	0.785	SEP	
EDAZ09	97.990	2.010	378	1.035	DEC	
EDAH10	98.005	1.995	469	1.284	MAR	Red Pack
EDAM10	97.920	2.080	560	1.533	JUN	
EDAU10	97.780	2.220	651	1.782	SEP	
EDAZ10	97.535	2.465	742	2.032	DEC	
EDAH11	97.385	2.615	833	2.281	MAR	Green Pack
EDAM11	97.175	2.825	924	2.530	JUN	
EDAU11	96.965	3.035	1022	2.799	SEP	
EDAZ11	96.750	3.250	1113	3.048	DEC	
EDAH12	96.735	3.265	1204	3.298	MAR	Blue Pack
EDAM12	96.635	3.365	1295	3.547	JUN	
EDAU12	96.550	3.450	1386	3.796	SEP	
EDAZ12	96.475	3.525	1477	4.045	DEC	
EDAH13	96.430	3.570	1568	4.295	MAR	Gold Pack
EDAM13	96.365	3.635	1659	4.544	JUN	
EDZU13	#VALUE!	#VALUE!	1841	5.043	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	2.000	2.063	9803.688	Pack Prices
Red Pack	2.116	10.375	9792.375	
Green Pack	2.792	18.000	9726.500	
Blue Pack	3.407	15.375	9666.750	
Gold Pack	3.681	16.375	9640.250	

Red pack is a 2yr proxy
 Gold pack is a 10yr proxy
 Red /Gold is a 2/10 proxy
 Blue pack is a 5yr proxy
 Blue/Gold is a 5/10 proxy

Notes

* Futures use CTD for Last Yield

IF : #VALUE!, then, no quote being provided by exchange.

If color of cell is orange, it's simply a 'note' for me.

How many ways can you hedge the TED? Let me count...there's lots and lots, like:

- 1 Regression
 - 2 Engineered
 - 3 Strip with and without Stubs
 - 4 Convexity Bias
 - 5 Weighted
 - 6 Unweighted
- and more...

Most of us are interested in the *unweighted hedge* which is simply a curve trade hedge. There are so many ways to hedge the TED trade that I can't possibly list them all.

If you email me and ask for a specific hedge, I'll get it to you.

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Correlations (Important)

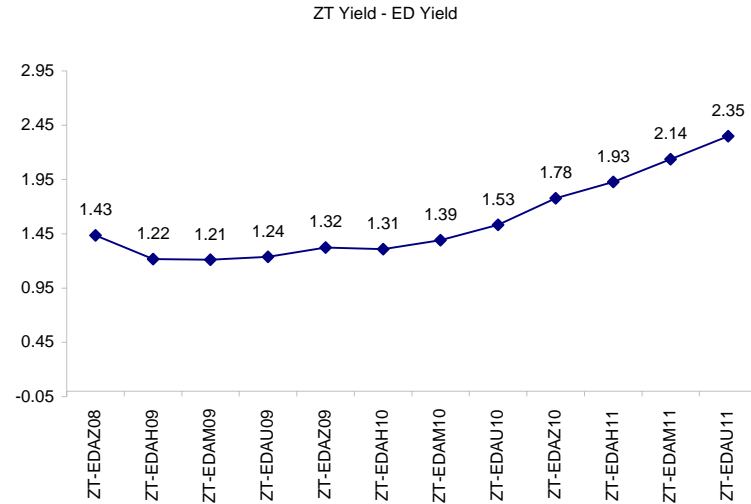
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based on yield than price.

ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.551	1.43	ZT-EDAZ08	-54.942
EDAH09	10.333	1.22	ZT-EDAH09	48.163
EDAM09	10.328	1.21	ZT-EDAM09	30.295
EDAU09	10.353	1.24	ZT-EDAU09	48.163
EDAZ09	10.438	1.32	ZT-EDAZ09	57.902
EDAH10	10.423	1.31	ZT-EDAH10	66.224
EDAM10	10.508	1.39	ZT-EDAM10	75.893
EDAU10	10.648	1.53	ZT-EDAU10	80.710
EDAZ10	10.893	1.78	ZT-EDAZ10	83.390
EDAH11	11.043	1.93	ZT-EDAH11	86.990
EDAM11	11.253	2.14	ZT-EDAM11	87.773
EDAU11	11.463	2.35	ZT-EDAU11	88.226

Price = Outright Decimal Price - Euro Contract Price

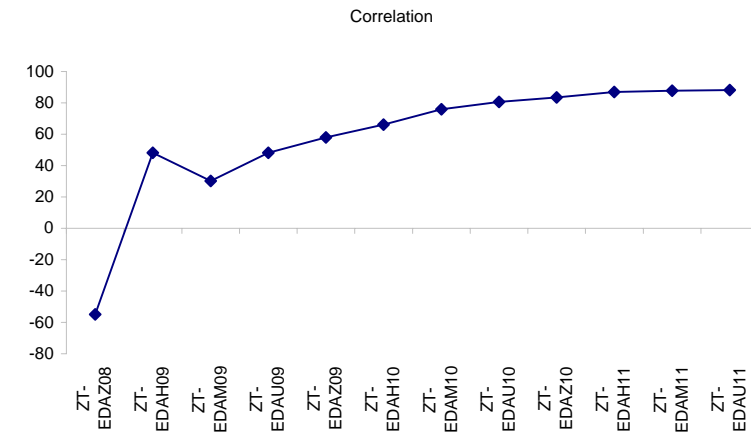
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZT Duration	Spread Duration	
EDAZ08	0.037	1.93	1.89	ZT-EDAZ08		
EDAH09	0.287	1.93	1.64	ZT-EDAH09		
EDAM09	0.536	1.93	1.39	ZT-EDAM09		
EDAU09	0.785	1.93	1.14	ZT-EDAU09		
EDAZ09	1.035	1.93	0.89	ZT-EDAZ09		
EDAH10	1.284	1.93	0.65	ZT-EDAH10		
EDAM10	1.533	1.93	0.40	ZT-EDAM10		
EDAU10	1.782	1.93	0.15	ZT-EDAU10		
EDAZ10	2.032	1.93	(0.10)	ZT-EDAZ10		
EDAH11	2.281	1.93	(0.35)	ZT-EDAH11		
EDAM11	2.530	1.93	(0.60)	ZT-EDAM11		
EDAU11	2.799	1.93	(0.87)	ZT-EDAU11		

The farther away from 0 the spread duration is the riskier the trade.

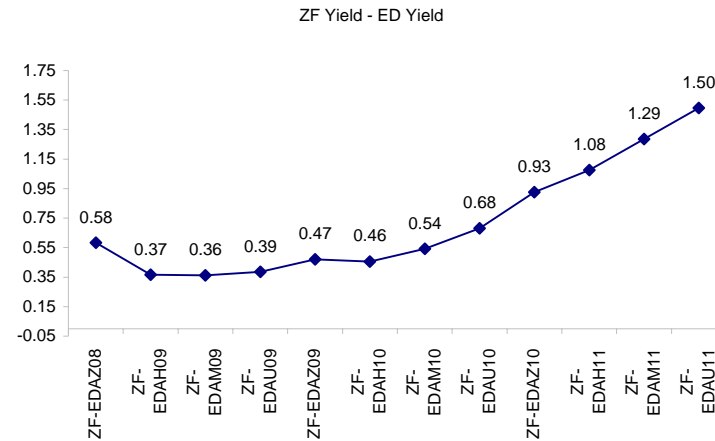


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	19.332	0.58	ZF-EDAZ08	-41.482
EDAH09	19.114	0.37	ZF-EDAH09	18.986
EDAM09	19.109	0.36	ZF-EDAM09	46.379
EDAU09	19.134	0.39	ZF-EDAU09	65.901
EDAZ09	19.219	0.47	ZF-EDAZ09	76.317
EDAH10	19.204	0.46	ZF-EDAH10	84.085
EDAM10	19.289	0.54	ZF-EDAM10	91.521
EDAU10	19.429	0.68	ZF-EDAU10	94.875
EDAZ10	19.674	0.93	ZF-EDAZ10	95.690
EDAH11	19.824	1.08	ZF-EDAH11	96.425
EDAM11	20.034	1.29	ZF-EDAM11	95.484
EDAU11	20.244	1.50	ZF-EDAU11	94.646

Price = Outright Decimal Price - Euro Contract Price

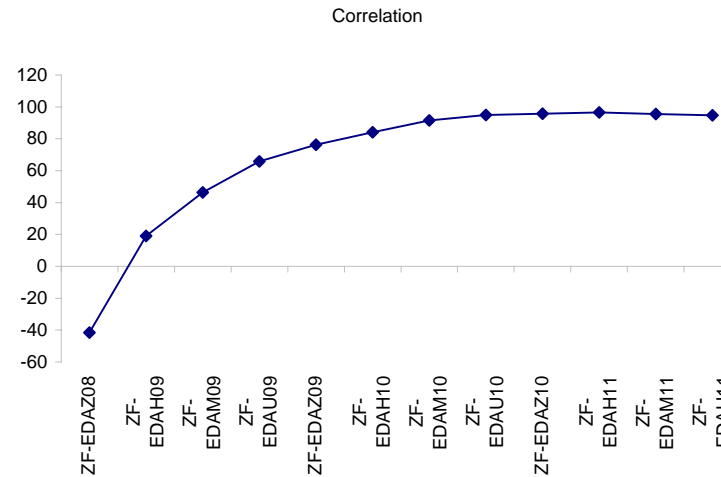
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.037	1.54	1.50	ZF-EDAZ08		
EDAH09	0.287	1.54	1.25	ZF-EDAH09		
EDAM09	0.536	1.54	1.00	ZF-EDAM09		
EDAU09	0.785	1.54	0.75	ZF-EDAU09		
EDAZ09	1.035	1.54	0.50	ZF-EDAZ09		
EDAH10	1.284	1.54	0.26	ZF-EDAH10		
EDAM10	1.533	1.54	0.01	ZF-EDAM10		
EDAU10	1.782	1.54	(0.24)	ZF-EDAU10		
EDAZ10	2.032	1.54	(0.49)	ZF-EDAZ10		
EDAH11	2.281	1.54	(0.74)	ZF-EDAH11		
EDAM11	2.530	1.54	(0.99)	ZF-EDAM11		
EDAU11	2.799	1.54	(1.26)	ZF-EDAU11		

The farther away from 0 the spread duration is the riskier the trade.

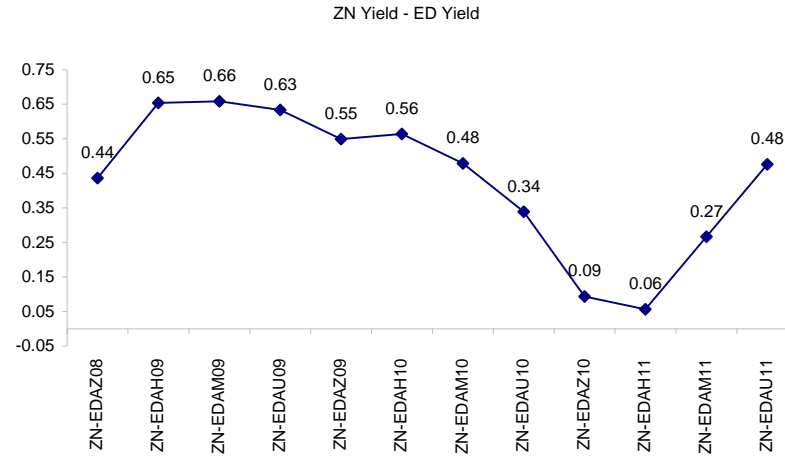


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	26.232	0.44	ZN-EDAZ08	-57.156
EDAH09	26.014	0.65	ZN-EDAH09	-1.183
EDAM09	26.009	0.66	ZN-EDAM09	24.932
EDAU09	26.034	0.63	ZN-EDAU09	45.926
EDAZ09	26.119	0.55	ZN-EDAZ09	58.129
EDAH10	26.104	0.56	ZN-EDAH10	68.638
EDAM10	26.189	0.48	ZN-EDAM10	91.521
EDAU10	26.329	0.34	ZN-EDAU10	94.875
EDAZ10	26.574	0.09	ZN-EDAZ10	95.690
EDAH11	26.724	0.06	ZN-EDAH11	96.425
EDAM11	26.934	0.27	ZN-EDAM11	95.484
EDAU11	27.144	0.48	ZN-EDAU11	94.646

Price = Outright Decimal Price - Euro Contract Price

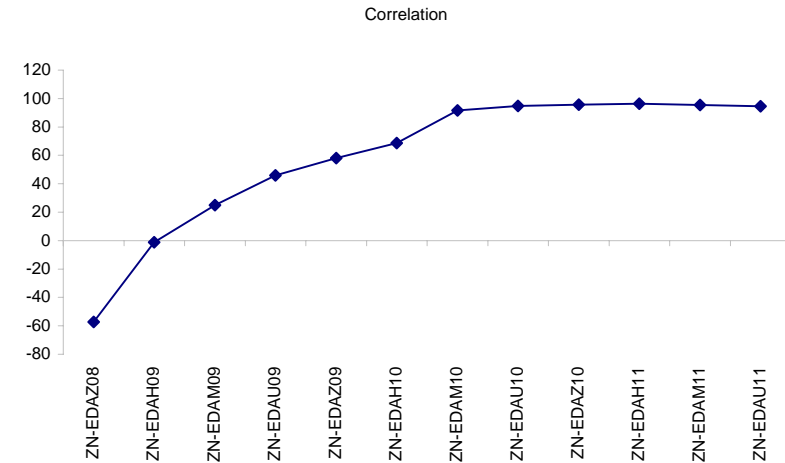
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.037	6.45	6.42	ZN-EDAZ08		
EDAH09	0.287	6.45	6.17	ZN-EDAH09		
EDAM09	0.536	6.45	5.92	ZN-EDAM09		
EDAU09	0.785	6.45	5.67	ZN-EDAU09		
EDAZ09	1.035	6.45	5.42	ZN-EDAZ09		
EDAH10	1.284	6.45	5.17	ZN-EDAH10		
EDAM10	1.533	6.45	4.92	ZN-EDAM10		
EDAU10	1.782	6.45	4.67	ZN-EDAU10		
EDAZ10	2.032	6.45	4.42	ZN-EDAZ10		
EDAH11	2.281	6.45	4.17	ZN-EDAH11		
EDAM11	2.530	6.45	3.92	ZN-EDAM11		
EDAU11	2.799	6.45	3.65	ZN-EDAU11		

The farther away from 0 the spread duration is the riskier the trade.

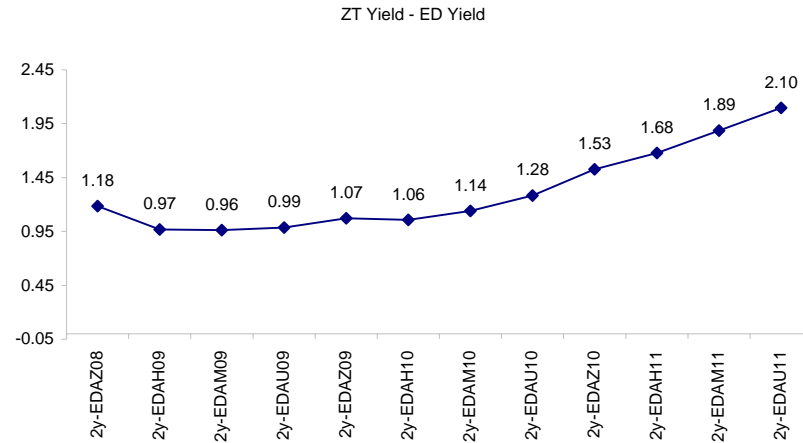


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.732	1.18	2y-EDAZ08	-22.610
EDAH09	2.514	0.97	2y-EDAH09	-57.426
EDAM09	2.509	0.96	2y-EDAM09	-66.880
EDAU09	2.534	0.99	2y-EDAU09	-77.353
EDAZ09	2.619	1.07	2y-EDAZ09	-83.514
EDAH10	2.604	1.06	2y-EDAH10	-85.600
EDAM10	2.689	1.14	2y-EDAM10	-84.337
EDAU10	2.829	1.28	2y-EDAU10	-82.219
EDAZ10	3.074	1.53	2y-EDAZ10	-79.280
EDAH11	3.224	1.68	2y-EDAH11	-75.018
EDAM11	3.434	1.89	2y-EDAM11	-72.650
EDAU11	3.644	2.10	2y-EDAU11	-71.029

Price = Outright Decimal Price - Euro Contract Price

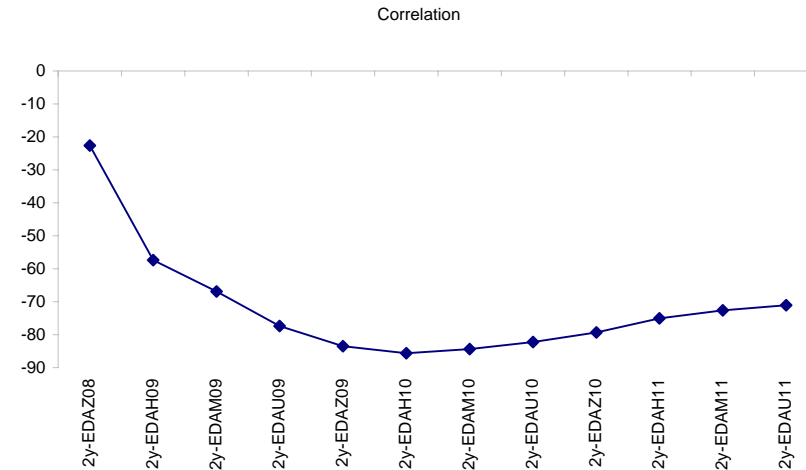
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days.



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.037	1.97	1.93	2y-EDAZ08	
EDAH09	0.287	1.97	1.68	2y-EDAH09	
EDAM09	0.536	1.97	1.43	2y-EDAM09	
EDAU09	0.785	1.97	1.18	2y-EDAU09	
EDAZ09	1.035	1.97	0.93	2y-EDAZ09	
EDAH10	1.284	1.97	0.68	2y-EDAH10	
EDAM10	1.533	1.97	0.43	2y-EDAM10	
EDAU10	1.782	1.97	0.18	2y-EDAU10	
EDAZ10	2.032	1.97	(0.07)	2y-EDAZ10	
EDAH11	2.281	1.97	(0.31)	2y-EDAH11	
EDAM11	2.530	1.97	(0.56)	2y-EDAM11	
EDAU11	2.799	1.97	(0.83)	2y-EDAU11	

The farther away from 0 the spread duration is the riskier the trade.

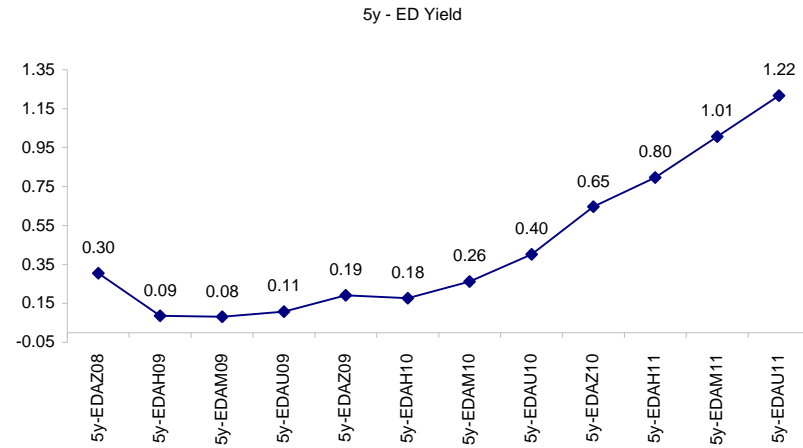


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.973	0.30	5y-EDAZ08	-28.625
EDAH09	2.755	0.09	5y-EDAH09	-65.752
EDAM09	2.750	0.08	5y-EDAM09	-75.911
EDAU09	2.775	0.11	5y-EDAU09	-85.172
EDAZ09	2.860	0.19	5y-EDAZ09	-91.325
EDAH10	2.845	0.18	5y-EDAH10	-95.030
EDAM10	2.930	0.26	5y-EDAM10	-97.182
EDAU10	3.070	0.40	5y-EDAU10	-97.040
EDAZ10	3.315	0.65	5y-EDAZ10	-96.123
EDAH11	3.465	0.80	5y-EDAH11	-94.263
EDAM11	3.675	1.01	5y-EDAM11	-93.202
EDAU11	3.885	1.22	5y-EDAU11	-92.394

Price = Outright Decimal Price - Euro Contract Price

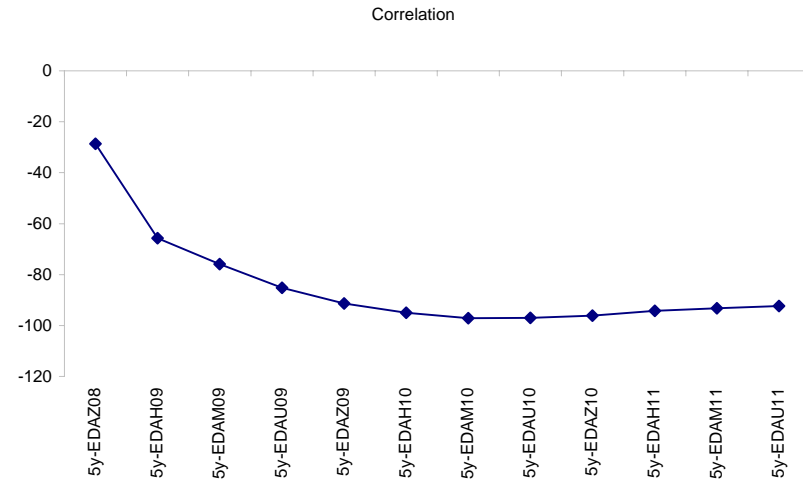
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.037	4.74	4.70	5y-EDAZ08
EDAH09	0.287	4.74	4.45	5y-EDAH09
EDAM09	0.536	4.74	4.20	5y-EDAM09
EDAU09	0.785	4.74	3.95	5y-EDAU09
EDAZ09	1.035	4.74	3.70	5y-EDAZ09
EDAH10	1.284	4.74	3.45	5y-EDAH10
EDAM10	1.533	4.74	3.20	5y-EDAM10
EDAU10	1.782	4.74	2.95	5y-EDAU10
EDAZ10	2.032	4.74	2.70	5y-EDAZ10
EDAH11	2.281	4.74	2.45	5y-EDAH11
EDAM11	2.530	4.74	2.21	5y-EDAM11
EDAU11	2.799	4.74	1.94	5y-EDAU11

The farther away from 0 the spread duration is the riskier the trade.

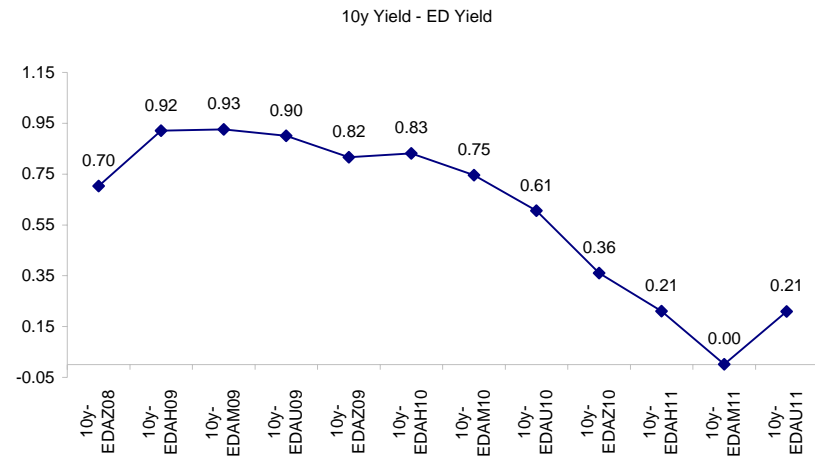


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.973	0.70	10y-EDAZ08	-18.321
EDAH09	2.755	0.92	10y-EDAH09	-47.563
EDAM09	2.750	0.93	10y-EDAM09	-58.140
EDAU09	2.775	0.90	10y-EDAU09	-69.048
EDAZ09	2.860	0.82	10y-EDAZ09	-76.537
EDAH10	2.845	0.83	10y-EDAH10	-82.978
EDAM10	2.930	0.75	10y-EDAM10	-91.004
EDAU10	3.070	0.61	10y-EDAU10	-94.756
EDAZ10	3.315	0.36	10y-EDAZ10	-96.323
EDAH11	3.465	0.21	10y-EDAH11	-97.710
EDAM11	3.675	0.00	10y-EDAM11	-98.219
EDAU11	3.885	0.21	10y-EDAU11	-98.507

Price = Outright Decimal Price - Euro Contract Price

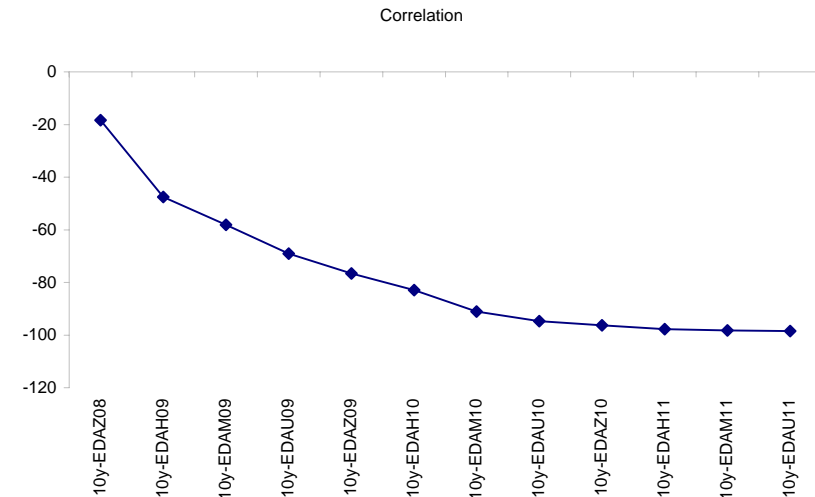
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.037	8.34	8.30	10y-EDAZ08
EDAH09	0.287	8.34	8.05	10y-EDAH09
EDAM09	0.536	8.34	7.80	10y-EDAM09
EDAU09	0.785	8.34	7.55	10y-EDAU09
EDAZ09	1.035	8.34	7.30	10y-EDAZ09
EDAH10	1.284	8.34	7.05	10y-EDAH10
EDAM10	1.533	8.34	6.80	10y-EDAM10
EDAU10	1.782	8.34	6.55	10y-EDAU10
EDAZ10	2.032	8.34	6.31	10y-EDAZ10
EDAH11	2.281	8.34	6.06	10y-EDAH11
EDAM11	2.530	8.34	5.81	10y-EDAM11
EDAU11	2.799	8.34	5.54	10y-EDAU11

The farther away from 0 the spread duration is the riskier the trade.



Dirty TED Curve

Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

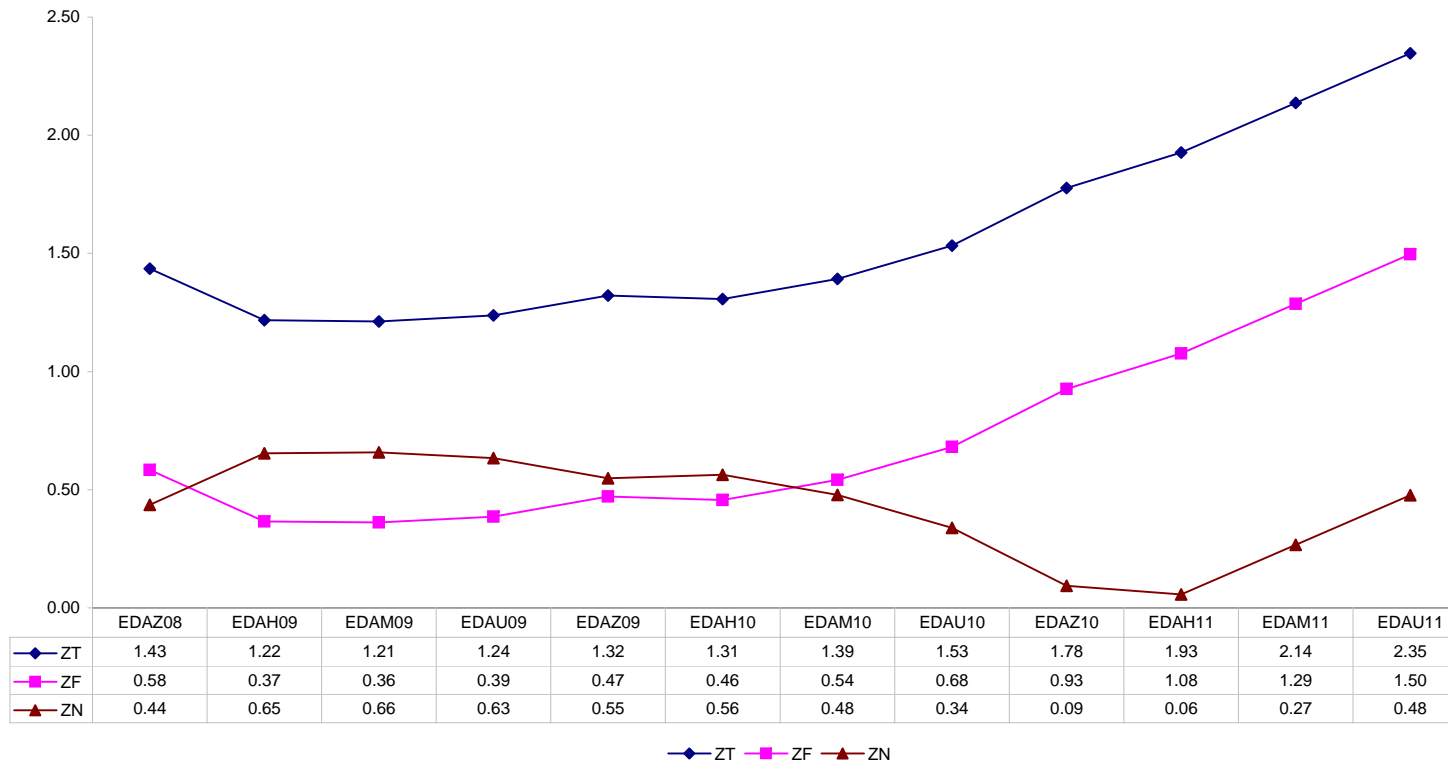
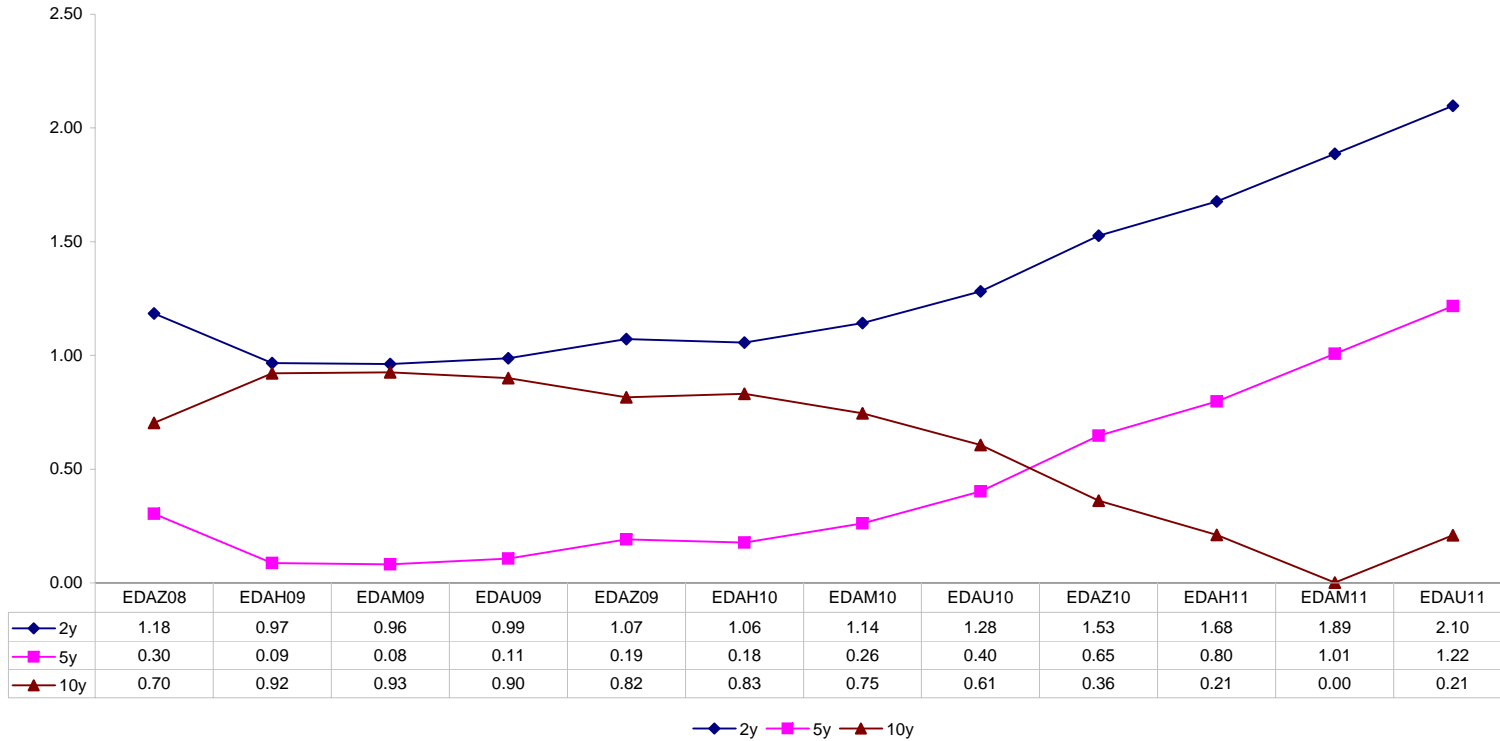
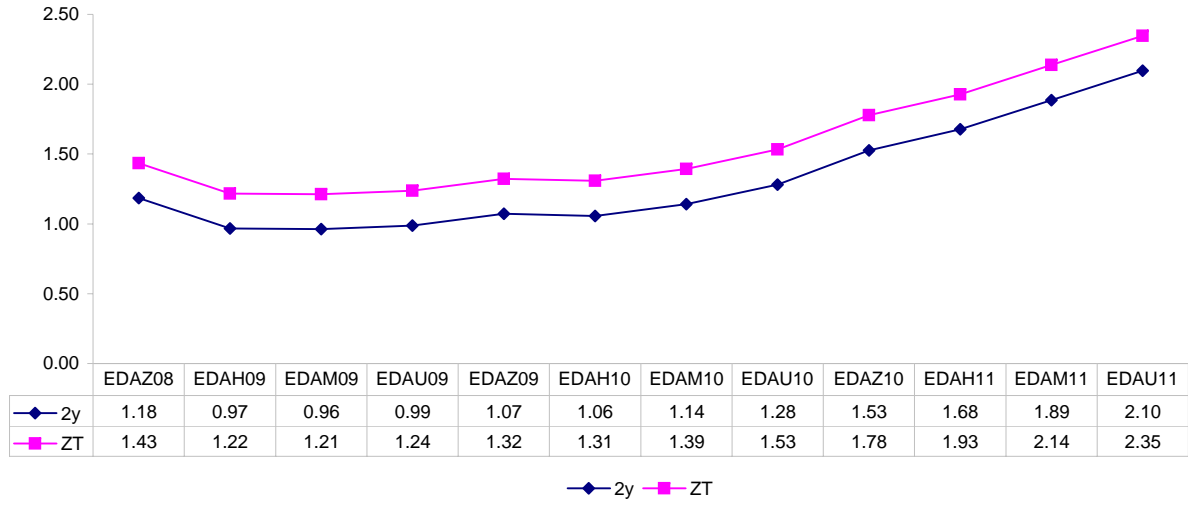


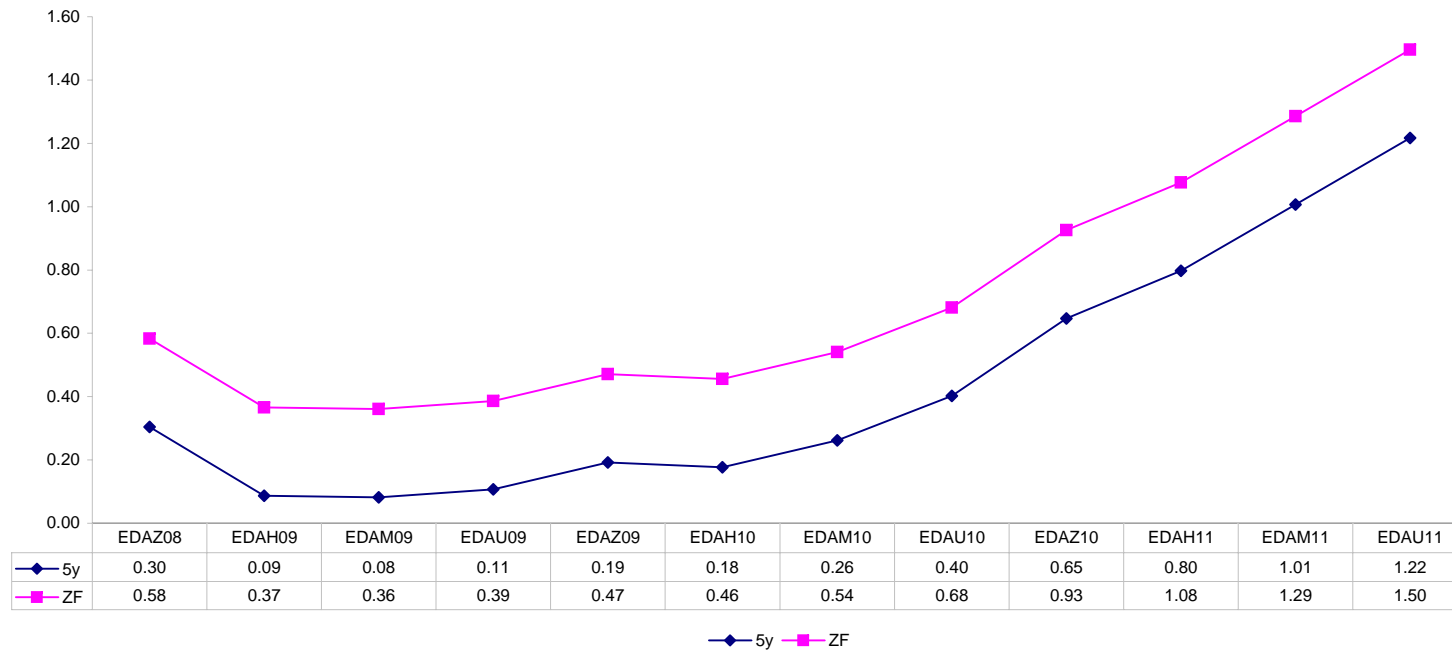
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



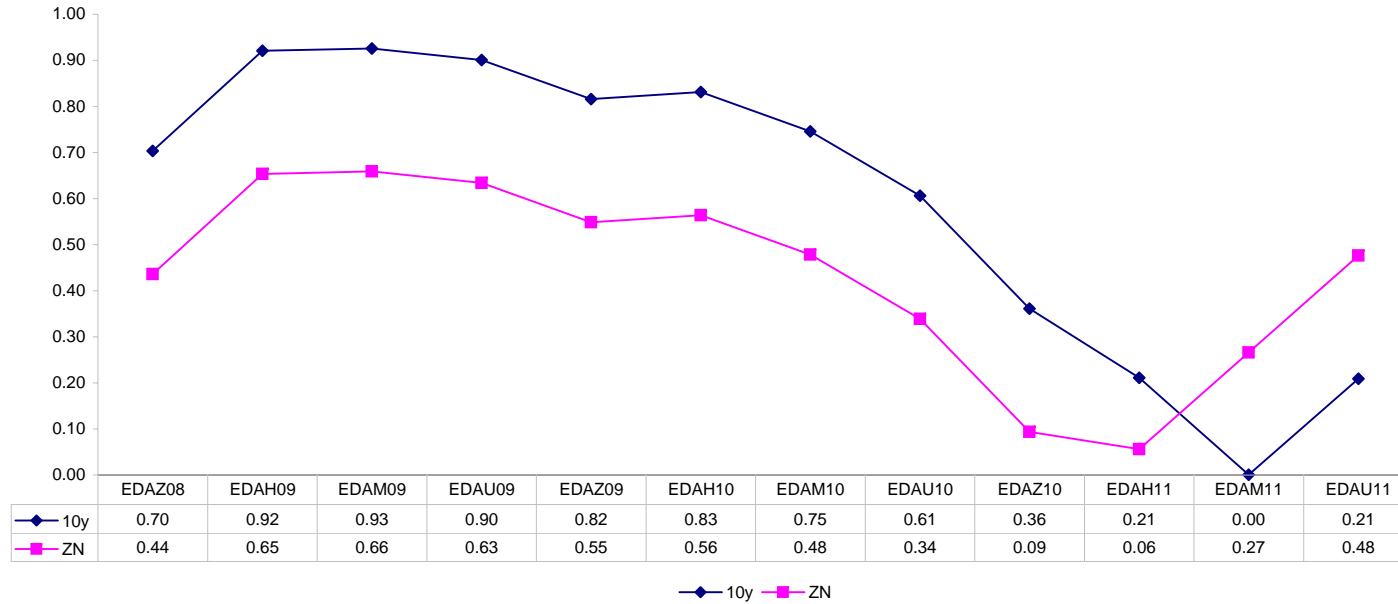
2y Basis TED Curve



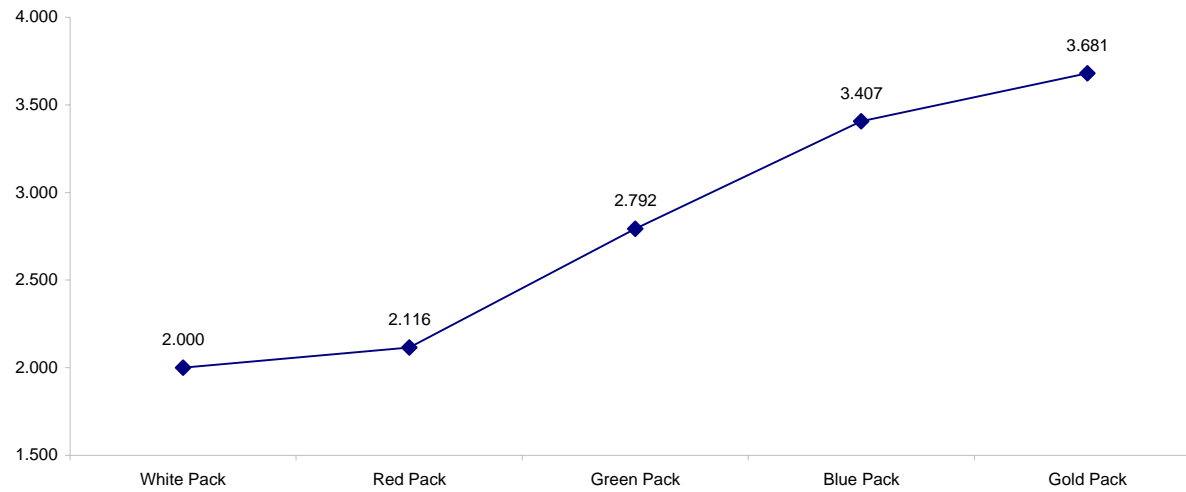
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.000	2.063	9803.688
Red Pack	2.116	10.375	9792.375
Green Pack	2.792	18.000	9726.500
Blue Pack	3.407	15.375	9666.750
Gold Pack	3.681	16.375	9640.250



2y, 5y, 10y Basis Curves vs ED

